**Combination reactions (Level 1) examiners tips: Read these please!**

**•** Combination reaction:two elements reacting together (joining/combining) to form a NEW substance

*metal + oxygen 🡪 metal oxide eg magnesium + oxygen gas 🡪 magnesium oxide*

*metal + non-metal 🡪 compound eg iron + sulfer 🡪 iron sulfide*

*gas + gas 🡪 new substance eg hydrogen gas + oxygen gas 🡪 water*

 be sure to describe the formation of ions in detail, use the phrase "atoms would like to achieve a

STABLE full outer shell, by either losing or gaining electrons"

*to achieve with Merit*

*you must explain the electron transfer involved in the formation of an ionic compound*

*or*

*the sharing of electrons (lack of electron transfer) during the formation of a covalent compound.*

*to achieve with Excellence you must state that "there is an electrostatic attraction between*

*oppositely charged ions eg (the cation Fe2+) and (the anion S2-)"*

**Also…”don’t be daft”**

a combination reaction is the joining of different ELEMENTS, not substances or compounds

please don't use ANTHROPOMORPHIC language, atoms are never "happy" with full outer shells or "wishing" to give away electrons

the properties of an ionic compound are not, repeat NOT a mixture of the properties of the metal and non-metal from which it is made

the symbol for a chlorine atom has a CAPITAL C and a lower case l, lower, lower case, little l

PLUMBUM is the Latin word for lead, which has the symbol Pb

and Fe is the symbol for IRON from the Latin word Ferrum

don't be daft, know your chemical symbols!

copper does not, never has and NEVER WILL rust

no sulfur is NOT a gas, sulfur is a yellow powder

if unsure about conditions for a reaction to occur, HEAT is usually a good bet

the NEW substance formed will have DIFFERENT properties to the reactants used

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